

**TDMS No.** 20101 - 02

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**

**Date Report Requested:** 03/11/2010

**Test Type:** 26-39 WEEKS

Senna (powdered)

**Time Report Requested:** 11:54:36

**Route:** DOSED FEED

**CAS Number:** 8013-11-4

**First Dose M/F:** 06/26/07 / 06/25/07

**Species/Strain:** MICE/P53(C57BL/6)

**Lab:** BAT

F1\_Rev.1\_MD

**C Number:** C20101B  
**Lock Date:** 09/03/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.2.0

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Lab: BAT

P53+/(C57BL/6) MICE MALE	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
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**Disposition Summary**

Animals Initially In Study	25	25	25	25	25	25
Early Deaths						
Natural Death		1			2	1
Survivors						
Terminal Sacrifice	25	24	25	25	23	24
Animals Examined Microscopically	25	25	25	25	25	25

**ALIMENTARY SYSTEM**

Intestine Large, Cecum	(25)	(25)	(25)	(25)	(23)	(25)
Epithelium, Hyperplasia						22 [1.4]
Intestine Large, Colon	(25)	(25)	(25)	(25)	(24)	(25)
Epithelium, Hyperplasia					3 [1.3]	25 [2.8]
Intestine Large, Rectum	(24)	(25)	(25)	(25)	(24)	(25)
Epithelium, Hyperplasia						1 [2.0]
Intestine Small, Duodenum	(25)	(25)	(25)	(25)	(23)	(25)
Ectopic Tissue					1	
Intestine Small, Jejunum	(25)	(25)	(25)	(25)	(23)	(24)
Epithelium, Hyperplasia			1 [2.0]			
Liver	(25)	(25)	(25)	(25)	(25)	(25)
Basophilic Focus	2	3	2			4
Clear Cell Focus				1		
Degeneration, Cystic				1 [2.0]		
Eosinophilic Focus		1			1	
Fibrosis				1 [1.0]		
Hematopoietic Cell Proliferation		2 [1.0]				
Inflammation, Chronic Active	15 [1.0]	17 [1.0]	19 [1.0]	22 [1.0]	14 [1.0]	10 [1.0]
Mixed Cell Focus			1	1	1	
Necrosis	1 [1.0]	1 [1.0]		1 [1.0]	1 [1.0]	1 [2.0]
Tension Lipidosis	1					
Kupffer Cell, Hyperplasia, Multifocal					1 [2.0]	
Pancreas	(25)	(25)	(25)	(25)	(25)	(25)
Stomach, Forestomach	(25)	(25)	(25)	(25)	(25)	(25)
Inflammation				1 [1.0]		

a - Number of animals examined microscopically at site and number of animals with lesion

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Lab: BAT

P53+/(C57BL/6) MICE MALE	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
Epithelium, Hyperplasia				1 [1.0]		
Stomach, Glandular	(25)	(25)	(25)	(25)	(25)	(25)
Mineralization			1 [1.0]	1 [1.0]		
Glands, Cyst	2 [1.0]	2 [1.0]	2 [1.0]		1 [1.0]	
Tooth	(1)	(0)	(0)	(0)	(0)	(0)
Malformation	1 [1.0]					
CARDIOVASCULAR SYSTEM						
Blood Vessel	(25)	(25)	(25)	(25)	(25)	(25)
Inflammation		1 [3.0]				
Heart	(25)	(25)	(25)	(25)	(25)	(25)
Mineralization					1 [1.0]	
Valve, Pigmentation, Melanin	1					
ENDOCRINE SYSTEM						
Adrenal Cortex	(24)	(25)	(25)	(25)	(25)	(25)
Atrophy				1 [2.0]		
Embolus Bacterial					1	
Hypertrophy	3 [1.0]	1 [1.0]	2 [1.0]	1 [1.0]	1 [1.0]	4 [1.5]
Subcapsular, Hyperplasia	4 [1.3]					8 [1.1]
Adrenal Medulla	(24)	(25)	(25)	(25)	(25)	(25)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Coagulating Gland	(2)	(0)	(1)	(0)	(0)	(3)
Epithelium, Hyperplasia	2 [1.5]		1 [1.0]			3 [1.7]
Epididymis	(25)	(25)	(25)	(25)	(25)	(25)

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P53+/(C57BL/6) MICE MALE	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
Inflammation						1 [2.0]
Epithelium, Karyomegaly	14 [1.4]				1 [1.0]	14 [1.1]
Preputial Gland	(25)	(25)	(25)	(25)	(25)	(23)
Ectasia						1 [2.0]
Hyperplasia					1 [4.0]	
Duct, Ectasia	4 [3.0]					2 [4.0]
Prostate	(25)	(25)	(25)	(25)	(25)	(25)
Infiltration Cellular, Mononuclear Cell	1 [1.0]		2 [1.0]	1 [1.0]		
Inflammation					1 [4.0]	1 [1.0]
Seminal Vesicle	(25)	(25)	(25)	(25)	(25)	(25)
Testes	(25)	(25)	(25)	(25)	(25)	(25)
Germinal Epithelium, Degeneration			1 [1.0]			
Rete Testes, Cyst	1 [2.0]					
HEMATOPOIETIC SYSTEM						
Bone Marrow	(25)	(25)	(25)	(25)	(25)	(25)
Hyperplasia		1 [2.0]				1 [4.0]
Lymph Node, Mandibular	(25)	(25)	(25)	(25)	(24)	(25)
Atrophy				3 [2.7]	2 [2.5]	
Hyperplasia, Lymphoid			1 [2.0]	2 [2.5]		
Lymph Node, Mesenteric	(24)	(25)	(25)	(25)	(25)	(25)
Atrophy		2 [3.5]				
Hyperplasia, Lymphoid				1 [2.0]		
Spleen	(25)	(25)	(25)	(25)	(23)	(25)
Hematopoietic Cell Proliferation		1 [3.0]	1 [2.0]			
Infiltration Cellular, Plasma Cell						1 [2.0]
Lymphoid Follicle, Atrophy		2 [1.5]				1 [3.0]
Lymphoid Follicle, Hyperplasia	1 [2.0]	1 [3.0]				1 [1.0]
Thymus	(25)	(24)	(25)	(25)	(23)	(25)
Atrophy		1 [3.0]		2 [1.5]		1 [4.0]
Cyst		1	1			
Cortex, Hyperplasia, Lymphoid					1 [2.0]	
Epithelial Cell, Hyperplasia				1 [1.0]		
Medulla, Hyperplasia, Lymphoid		2 [2.0]	3 [1.3]	2 [2.0]	4 [1.0]	

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P53+/(C57BL/6) MICE MALE	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
INTEGUMENTARY SYSTEM						
Skin	(25)	(25)	(25)	(25)	(25)	(25)
MUSCULOSKELETAL SYSTEM						
Bone	(25)	(25)	(25)	(25)	(25)	(25)
Hyperostosis						1 [2.0]
NERVOUS SYSTEM						
Brain	(25)	(25)	(25)	(25)	(25)	(25)
RESPIRATORY SYSTEM						
Lung	(25)	(25)	(25)	(25)	(25)	(25)
Thrombosis					1 [1.0]	
Alveolar Epithelium, Hyperplasia						1 [4.0]
Nose	(25)	(25)	(25)	(25)	(25)	(25)
Inflammation	2 [1.0]	1 [1.0]	2 [1.0]		1 [1.0]	
Glands, Olfactory Epithelium, Hyperplasia			1 [1.0]			
Glands, Respiratory Epithelium, Hyperplasia	1 [1.0]	6 [1.0]	2 [1.0]	2 [1.0]	3 [1.0]	
Respiratory Epithelium, Cyst					1 [1.0]	
Respiratory Epithelium, Hyperplasia	2 [1.0]		1 [1.0]	2 [1.0]		1 [1.0]
Septum, Hyalinization	15 [2.9]	1 [2.0]			2 [2.0]	16 [2.6]
SPECIAL SENSES SYSTEM						
Harderian Gland	(0)	(0)	(0)	(0)	(1)	(0)

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URINARY SYSTEM						
Kidney	(25)	(25)	(25)	(25)	(25)	(25)
Infiltration Cellular, Mononuclear Cell	1 [1.0]					
Inflammation					1 [3.0]	1 [4.0]
Mineralization		4 [1.0]	1 [1.0]		1 [1.0]	
Necrosis					1 [3.0]	
Nephropathy	7 [1.0]	7 [1.0]	7 [1.0]	7 [1.0]	9 [1.0]	8 [1.0]
Cortex, Cyst					1 [1.0]	
Papilla, Necrosis						1 [4.0]
Urinary Bladder	(25)	(25)	(25)	(25)	(25)	(25)
Inflammation					1 [2.0]	1 [2.0]

\*\*\* END OF MALE \*\*\*

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<b>Disposition Summary</b>						
Animals Initially In Study	25	25	25	25	25	25
Early Deaths						
Moribund Sacrifice	2	2	2	2	2	1
Natural Death				1	1	
Survivors						
Terminal Sacrifice	23	23	23	22	22	24
Animals Examined Microscopically	25	25	25	25	25	25

## ALIMENTARY SYSTEM

Gallbladder	(25)	(25)	(25)	(25)	(25)	(25)
Inflammation						1 [2.0]
Intestine Large, Cecum	(25)	(25)	(25)	(25)	(25)	(25)
Epithelium, Hyperplasia						19 [1.3]
Intestine Large, Colon	(25)	(25)	(25)	(25)	(25)	(25)
Epithelium, Hyperplasia					7 [1.0]	25 [2.7]
Intestine Large, Rectum	(25)	(25)	(25)	(25)	(25)	(25)
Epithelium, Hyperplasia						1 [1.0]
Intestine Small, Duodenum	(25)	(25)	(25)	(24)	(25)	(25)
Intestine Small, Jejunum	(25)	(25)	(25)	(25)	(25)	(25)
Diverticulum			1	1		
Liver	(25)	(25)	(25)	(25)	(25)	(25)
Basophilic Focus						1
Clear Cell Focus						1
Hematopoietic Cell Proliferation	1 [1.0]				1 [1.0]	1 [1.0]
Infiltration Cellular, Mixed Cell				2 [2.0]		
Inflammation, Chronic Active	13 [1.0]	2 [1.0]	1 [1.0]	5 [1.0]	6 [1.0]	9 [1.0]
Mixed Cell Focus	1					
Necrosis					1 [1.0]	
Necrosis, Focal	1 [1.0]					
Tension Lipidosis				1		
Pancreas	(25)	(25)	(25)	(25)	(25)	(25)
Atrophy					1 [1.0]	
Salivary Glands	(25)	(25)	(25)	(25)	(25)	(25)

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Hyperplasia, Lymphoid Stomach, Forestomach Inflammation Epithelium, Hyperplasia	1 [1.0] (25)	(25)	(25) 1 [1.0] 1 [2.0]	1 [1.0] (25)	(25)	1 [1.0] (25)
Stomach, Glandular Epithelium, Metaplasia, Squamous Glands, Cyst Tooth	(25) 1 (0)	(25) 4 [1.0] (1)	(25) 3 [1.0] (0)	(25) 1 [1.0] 2 [1.0] (0)	(25) 1 [1.0] 1 [1.0] (0)	(25) (0)
CARDIOVASCULAR SYSTEM						
Heart Cardiomyopathy Embolus Tumor Infiltration Cellular, Lymphocyte Epicardium, Inflammation Valve, Thrombosis	(25)	(25) 1	(25)	(25) 1 [3.0]	(25) 2 [1.0] 1 [2.0] 1 [2.0]	(25) 1 [1.0]
ENDOCRINE SYSTEM						
Adrenal Cortex Hypertrophy Subcapsular, Hyperplasia Adrenal Medulla Pituitary Gland Pars Distalis, Hyperplasia Thyroid Gland Cyst	(25) 16 [1.3] (25) (25) (25) (25) (25) (25) 1 [2.0]	(25) 2 [1.0] (25) (25) (25) (25) (25) 1 [2.0]	(25) 1 [1.0] 1 [1.0] (25) (25) 1 [1.0] (25)	(25) 2 [1.0] (25) (25) (25) (25) (25)	(25) 1 [2.0] (25) (25) (25) (25) (25)	(25) 16 [1.3] (25) (25) (25) (25) (25)
GENERAL BODY SYSTEM						
Peritoneum	(1)	(0)	(0)	(0)	(0)	(0)

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GENITAL SYSTEM						
Ovary	(25)	(25)	(25)	(25)	(25)	(25)
Angiectasis		1 [3.0]				
Atrophy	3 [1.7]	3 [2.0]	2 [1.5]	3 [1.7]	2 [2.0]	4 [1.0]
Cyst	1 [1.0]	2 [1.0]		3 [1.0]	1 [1.0]	1
Mineralization			1 [1.0]			
Pigmentation, Hemosiderin			1 [1.0]			
Uterus	(25)	(25)	(25)	(25)	(25)	(25)
Endometrium, Hyperplasia, Cystic	15 [1.0]	7 [1.1]	3 [1.0]	5 [1.0]	6 [1.0]	14 [1.1]
HEMATOPOIETIC SYSTEM						
Bone Marrow	(25)	(25)	(25)	(25)	(25)	(25)
Hyperplasia	1 [2.0]	1 [3.0]		1 [1.0]		1 [2.0]
Inflammation		1 [1.0]				
Necrosis					1 [2.0]	
Lymph Node	(2)	(1)	(0)	(0)	(0)	(0)
Lymph Node, Mandibular	(25)	(25)	(25)	(25)	(25)	(25)
Atrophy			1 [1.0]	2 [2.0]	1 [2.0]	1 [2.0]
Hyperplasia, Lymphoid	1 [2.0]					
Infiltration Cellular, Mast Cell		1 [2.0]				
Lymph Node, Mesenteric	(23)	(25)	(25)	(25)	(25)	(25)
Atrophy	1 [4.0]	1 [1.0]	2 [2.0]	2 [3.0]	2 [2.0]	
Hyperplasia, Lymphoid						1 [1.0]
Inflammation, Suppurative				1 [3.0]		
Spleen	(25)	(25)	(25)	(25)	(25)	(25)
Hematopoietic Cell Proliferation	1 [4.0]	1 [3.0]		1 [1.0]	1 [2.0]	
Lymphoid Follicle, Atrophy	1 [2.0]	1 [2.0]				
Lymphoid Follicle, Hyperplasia		1 [2.0]		2 [2.0]		
Thymus	(24)	(22)	(22)	(22)	(22)	(24)
Atrophy	3 [1.7]	1 [4.0]	1 [2.0]	1 [1.0]	1 [1.0]	2 [1.0]
Hyperplasia, Lymphoid	1 [2.0]					
Medulla, Hyperplasia, Lymphoid	4 [1.3]	3 [1.0]	3 [1.3]	6 [1.5]	5 [1.2]	4 [1.0]

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INTEGUMENTARY SYSTEM						
Mammary Gland	(25)	(25)	(25)	(25)	(25)	(25)
Duct, Ectasia	1 [2.0]				1 [2.0]	1 [1.0]
MUSCULOSKELETAL SYSTEM						
Bone	(25)	(25)	(25)	(25)	(25)	(25)
Callus	1					
Fibro-Osseous Lesion		2		2	1	1
NERVOUS SYSTEM						
Brain	(25)	(25)	(25)	(25)	(25)	(25)
Peripheral Nerve	(1)	(0)	(1)	(1)	(1)	(0)
Degeneration	1 [3.0]					
Spinal Cord	(1)	(0)	(2)	(2)	(1)	(1)
Degeneration			2 [2.5]	2 [3.5]		1 [4.0]
Nerve, Degeneration	1 [3.0]					
RESPIRATORY SYSTEM						
Lung	(25)	(25)	(25)	(25)	(25)	(25)
Alveolar Epithelium, Hyperplasia	1 [1.0]					
Artery, Infiltration Cellular, Mixed Cell		1 [3.0]				
Serosa, Inflammation					1 [2.0]	
Nose	(25)	(25)	(25)	(25)	(25)	(25)
Inflammation	1 [1.0]	1 [1.0]	1 [1.0]	2 [1.0]		1 [1.0]
Inflammation, Suppurative				1 [2.0]		
Glands, Olfactory Epithelium, Dilatation			1 [1.0]			
Glands, Respiratory Epithelium, Hyperplasia	1 [1.0]	6 [1.0]	4 [1.0]	4 [1.0]	4 [1.0]	
Olfactory Epithelium, Degeneration						1 [1.0]
Septum, Hyalinization	17 [1.6]	2 [1.5]	3 [1.7]	2 [1.0]	3 [1.3]	15 [1.9]

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## SPECIAL SENSES SYSTEM

None

## URINARY SYSTEM

Kidney	(25)	(25)	(25)	(25)	(25)	(25)
Hyperplasia, Lymphoid						1 [1.0]
Mineralization	1 [1.0]		1 [1.0]			
Nephropathy	3 [1.0]	6 [1.0]	5 [1.0]	4 [1.0]	9 [1.0]	2 [1.0]
Urinary Bladder	(25)	(25)	(25)	(25)	(25)	(25)
Infiltration Cellular, Lymphocyte		1 [2.0]	3 [2.0]	2 [2.0]		
Inflammation			1 [1.0]			
Transitional Epithelium, Vacuolization					1 [2.0]	
Cytoplasmic						

\*\*\* END OF REPORT \*\*\*

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